

Applicant: Dan Mielke, et al
Serial No. 09/760,314
April 17, 2003

REMARKS/ARGUMENTS

Pursuant to 37 C.F.R. §1.111, reconsideration of the instant application, as amended herewith, is respectfully requested. Entry of the amendment is requested.

The pending patent application inadvertently omitted reference to a previously submitted provisional application numbered Serial No. 60/181,410, filed on February 9, 2000. Applicant regrets the omission, and includes herein a replacement first sheet to the application including the priority claim.

Claims 1-18 are presently pending before the Office. The Examiner has restricted claims 1-18 and claims 19 and 20. Examiner has required affirmation of the election requirement by Applicant, and that affirmation is hereby made. Examiner has rejected claims 1-18. Applicant appreciates the Examiner's statement that claims 11, 13, 15 and 16 would be allowable if rewritten to overcome a §112 rejection. Applicant has herein amended these claims to overcome the §112 rejection. Applicant has also amended the other claims to overcome the Examiner's §103(a) rejection. No new matter has been added. No claims have been canceled. New claims 21 through 27 have been added. Support for the amendments and the new claims can be found throughout the specification as originally filed, and in particular at Page 9, and Figures 3 and 4. Applicant is not intending in any manner to narrow the scope of the originally filed claims.

The Examiner's Action and the references cited therein have been carefully studied by Applicant and the undersigned counsel. The amendments appearing above and these explanatory

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remarks are believed to be fully responsive to the Action. Accordingly, this important patent application is believed to be in condition for allowance.

Relying on 35 U.S.C. §112, second paragraph, the Examiner has rejected the subject matter of Claims 1-18 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner alleges that several phrases are unclear in claim 1 because of a lack of antecedent basis within the claim language. A similar rejection was made because of language in claim 16. Applicant respectfully traverses the rejection and requests reconsideration.

Applicant submits that claims 1-18 do define the legal metes and bounds of the invention. It is not the role of the claims to enable one skilled in the art to reproduce the invention but rather to define, for those skilled in the art, the legal metes and bounds of the invention. Nevertheless, in order to advance the case to allowance, claims 1 and 16 have been amended such that the rejection for lack of antecedent basis is obviated.

It is respectfully submitted that claims 1-18, as amended, fully comply with 35 U.S.C. §112, second paragraph. The change made herein change the word "the" to the word "a" in claim language that, even in the original, was understandable by one skilled in the art. Therefore, no estoppel should apply to this amendment. Withdrawal of the rejection is respectfully requested, and a Notice of Allowance for these claims is earnestly solicited.

Relying on 35 U.S.C. §103(a), the Examiner has rejected the subject matter of claims 1-6 as obvious over Graham et al. ("Graham") in view of Hegg and Hordis. The Examiner also has

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rejected claims 7-10 and 12 as obvious over Graham in view of Hegg, Hordis and Kurtz. Applicant respectfully traverses the rejection and requests reconsideration.

There is nothing in this prior art to teach the essence of the present invention: the creation of a structural bond formed from a structural adhesive located between a top mating portion and a bottom mating portion. The structural adhesive has advantages including a reduced or eliminated need for stringers and an ability to form a boat hull directly in the closed molds. Also, the structural bond permits a higher internal pressure from injected foam than has previously been known. It is evident that Applicant's invention is decidedly different from the teachings of the Graham patent. Graham does not suggest or even mention the creation of a structural bond. In fact, Graham does not suggest or teach the creation or use of any adhesive between the top portion and the bottom portion of the piece. Graham also does not teach of any mechanism to relieve the stress of the pressure of the foam within the formed piece, as described in the amended claims. The adhesive bond is novel and integral to the inventive device.

In fact, as stated in the Office Action, Graham does not teach the use of adhesive at all. Moreover, in the other cited art, adhesive is only used to adhere pieces of the hull to each other; a structural bond is decidedly not shown. As shown at Col. 4, l. 48-50, Hordis merely teaches the use of adhesive to join a top piece and a bottom piece. Hordis fails to teach having a structural adhesive creating a structural bond which reduces or eliminates the need for a stringer to fortify the hull. Also, nothing in Hordis teaches a structural bond that strengthens the hull against the internal pressures of the foam used to fill the shell. Hordis also fails to teach the use of a

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methacrylate compound at all, as found in the amended claims. The forming and use of the structural bond as referenced in the amended claims is described at Page 9 of the application. The use of methacrylate is also found in the specification at page 9. Accordingly, the Examiner has not established a prima facie case of obviousness.

On Page 4 of the Examiner's Action, the Examiner submits his contention that the space for receiving adhesive in Hordis is within the range of claim 2, and baldly states that providing reinforcement is well known and would have been obvious. Applicant respectfully states that such rejections are improper and are not based upon the distinctive aspects of the present invention. As discussed above, it is clear that Hordis does not teach or suggest the benefit of a structural bond formed from a structural adhesive. IT is the structural bond which provides strength to the hull and reduces or eliminates the need for stringers. In fact, Hordis does not even teach a gap between the top portion and the bottom portion at all. There is no suggestion to or reason to assume such a gap.

Furthermore, the reinforcement provided in the present invention is novel. Any reinforcement that may have been suggested in the prior art is from outside forces only, or from the inclusion of a separate reinforcement piece to be added.. None of the cited art provides for a structural connection. Moreover, there is no teaching of a structural bond within the top portion and the bottom portion which fortifies the one piece hull against the internal pressure of foam applied within it.

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In addition, the reinforcements of claim 4, as amended, refer to reinforcements for attachment points for cleats and other similar boating accessories, as described in page 8 of the application. The reinforcement of that claim is not directed to the reinforcement made by the structural bond. It is believed that the amendments herein clarify the language of claim 4.

Clearly, there is an absence of any suggestion or teaching to use a structural adhesive to form a structural bond at all. Moreover, there is no teaching of a structural bond for relieving stress from foam within the hull, or to use methacrylate compound. One skilled in the art certainly could not find ample motivation to use the teachings of Graham, Hegg, Hordis and Kurtz to arrive at the present invention. There can be no motivation to combine the prior art to produce the structural bond to help relieve interior pressure since the cited references together do not even address the problem.

The Office has used the claimed invention as a reference against itself as if it had preceded itself in time. Legal authority invalidates such an analytical or reverse engineering approach to patent examination. It is not Applicant's burden to refute the Office's position that it would have been obvious to one of ordinary skill in this art at the time this invention was made to arrive at the present invention in view of the Graham, Hegg, Hordis and Kurtz patents. It is the burden of the Office to show some teaching or suggestion in the reference to support this allegation. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d at 1051, 5 U.S.P.Q.2d at 1438-39 (Fed. Cir. 1988).

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A finding by the Office that a claimed combination of elements would have been obvious to one of ordinary skill in the art at the time the invention was made based merely upon finding similar elements in a prior art reference would be "contrary to statute and would defeat the congressional purpose in enacting Title 35." Panduit Corp. v. Dennison Mfg. Co., 1 U.S.P.Q.2d 1593 at 1605 (Fed. Cir. 1987). Accordingly, Applicant respectfully submits that claims 1-10, 12 and 14 are patentable as amended over the Graham patent under 35 U.S.C. §103. Withdrawal of the rejection is respectfully requested.

Although no specific rejection is made of claim 14 in the text of Examiner's Action, it is believed that the changes herein to the underlying independent claim will make claim allowable.

One of ordinary skill in the field of this invention at the time this invention was made would not have selected from the prior art the specific references cited by the Office, because the prior art is as vast as technology itself; the cited references were excised from the corpus of the prior art only after Applicant's invention had been disclosed. Thus, the Office had a decided advantage over those of ordinary skill in the art, since they, like Applicant, were confronted with the prior art taken as a whole, not just the patents awarded to Graham, Hegg, Hordis and Kurtz. See Panduit Corp. v. Dennison Mfg. Co., 810 F.2d at 1577, 1 U.S.P.Q.2d at 1605 (Fed. Cir. 1987).

Applicant's invention is the needle in the haystack of the prior art. Applicant found the needle; the Office then selects the straws that were adjacent the needle and contends that said straws had pointed out the location of the needle. Of course, the opposite is true.

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In addition, for the reasons stated, the new claims 21 through 27 also are not obvious in light of Graham, Hegg, Hordis and Kurtz. As detailed above, none of the prior art suggests or mentions the use of a structural adhesive, which is an integral part of the present invention as newly claimed.

CONCLUSION

Even though the initial claims in this important patent application were drawn to a new, useful and nonobvious invention, they have now been amended to increase their specificity of language. Applicant respectfully submits that claims 1-18 are patentable over the art of record. Applicant further submits that the changes do not alter the rationale for the Examiner's statement regarding the allowance of claims 11, 13, 15 and 16. Thus, no estoppel has been created by these amendments.

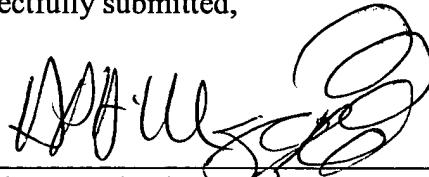
A Notice of Allowance for all of the claims submitted herein is earnestly solicited.

If the Office is not fully persuaded as to the merits of Applicant's position, or if an Examiner's Amendment would place the pending claims in condition for allowance, a telephone call to the undersigned at (954) 763-3303 would be appreciated.

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If there are any additional charges, including extension of time, please bill our Deposit
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Respectfully submitted,



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A COMPOSITE MATERIAL FOR VEHICLE HULLS AND A HULL MOLDING PROCESS
THIS APPLN CLAIMS PRIORITY OF SERIAL NO. 60/181410 FILED 2/9/2000

BACKGROUND OF THE INVENTION

5 1. Field of the Invention

This invention relates generally to the field of molding vehicle hulls.

2. Description of Related Art

10 Various composite materials for vehicle hulls and processes of forming hulls of vehicles are known in the art. Several hulls in the marine industry incorporate molding processes for the surface elements of the shell of the vehicle. Also, several boats incorporate filling of an inner and outer shell with a
15 core material.

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U.S. Patent No. 5,372,763 issued December 13, 1994 to Hordis ("Hordis") describes a method of forming a transom for a boat. Hordis teaches the use of offset keys to space an inner and an outer transom.

20 A method of molding a composite framed resin article is described in U.S. Patent No. 3,711,581 issued January 16, 1973 to Fowler, Jr. et al. ("Fowler"). Fowler teaches a molded article with spaced rods between the layers of the articles to provide support.

25 U.S. Patent No. 5,861,119 issued January 19, 1999 to Merser

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